

# Filter regulator LFR, LFRS

FESTO



### Characteristics

#### At a glance

Space-saving design with filter and regulator in a single device.

- Two pressure gauge connections for variable installation
- Sizes Mini, Midi, Maxi

#### Pneumatic connection

Individual fittings can be connected via connecting plates with female threads.

#### Version

[D] D series, metal

Sturdy in full metal design for the specific requirements of the process automation industry

#### Pressure regulation range

Two pressure regulation ranges: 0.5...7 bar and 0.5...12 bar

#### Grade of filtration

Grade of filtration of 5 µm or 40 µm can be selected.

#### Pressure gauge

The filter regulator can be ordered with or without a pressure gauge. The interface has a thread of G1/4 or G1/8.

#### Function

Direct or pilot actuated pressure regulator with or without integrated return flow function.

The condensate is separated; then the compressed air is filtered. The output pressure is adjustable within the pressure range.

#### Condensate drain

The following functions can be selected:

- Manual
- Fully automatic, normally closed

## Type code

001	Series
LFR	Filter regulator
LFRS	Filter regulator, lockable

002	Pneumatic connection
1/8	Female thread G1/8
1/4	Female thread G1/4
3/8	Female thread G3/8
1/2	Female thread G1/2
3/4	Female thread G3/4
1	Female thread G1

003	Version
D	D series, metal

004	Pressure regulation range
	0.5 ... 12 bar (0.05 ... 1.2 MPa)
7	0.5 ... 7 bar (0.05 ... 0.7 MPa)

005	Grade of filtration
	40 μm
5M	5 μm

006	Pressure gauge
	With pressure gauge
0	Without pressure gauge

007	Function
	Directly actuated pressure regulator (MICRO, MINI, MIDI), pilot actuated pressure regulator (only MAXI)
DI	Directly actuated pressure regulator with integrated return flow function (only MAXI)

008	Size
MINI	Grid dimension 40 mm (without connecting plates)
MIDI	Grid dimension 55 mm (without connecting plates)
MAXI	Grid dimension 66 mm (without connecting plates)

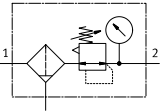
009	Condensate drain
A	Fully automatic
	Manually rotating

## Datasheet

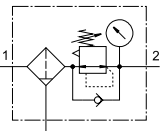
## General technical data

Pneumatic connection, port 1	G1/8	G1/4	G3/8	G1/2	G3/4	G1
Size	Mini	Midi Mini		Maxi Midi		Maxi
Pneumatic connection, port 2	G1/8	G1/4	G3/8	G1/2	G3/4	G1
Standard nominal flow rate (standardised to DIN 1343)	650 ... 900 l/min	1,200 ... 2,100 l/min	1,350 ... 3,200 l/min	2,600 ... 9,500 l/min	2,600 ... 10,000 l/min	6,000 ... 11,000 l/min
Max. pressure hysteresis	0.2 bar			0.2 ... 0.4 bar		0.4 bar
Pressure regulation range	0.5 ... 12 bar					
Design	Filter regulator with pressure gauge, Filter regulator without pressure gauge					
Condensate drain	Fully automatic Manually rotating					
Type of mounting	Either:, In-line installation, With accessories					
Mounting position	Vertical +/-5°					
Grade of filtration	5 µm, 40 µm					
Actuator lock	Rotary knob with detent	Rotary knob with detent Rotary knob with inte- grated lock	Rotary knob with detent	Rotary knob with detent Rotary knob with inte- grated lock	Rotary knob with detent	
Pressure gauge (ANALOG) or Pressure display (DIGITAL)	Prepared for G1/8, With pressure gauge	Prepared for G1/4, Prepared for G1/8, With pres- sure gauge		Prepared for G1/4, With pressure gauge		
Air purity class at output	Compressed air to ISO 8573-1:2010 [6:8:4] Compressed air to ISO 8573-1:2010 [7:8:4] Inert gases					
Max. condensate volume	22 cm <sup>3</sup>	22 ... 43 cm <sup>3</sup>		43 ... 80 cm <sup>3</sup>		

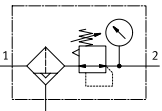
## Function LFR/LFRS (manual condensate drain, with pressure gauge)



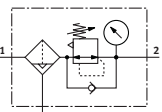
## Function LFR/LFRS-...-DI-MAXI (manual condensate drain, with pressure gauge)



## Function LFR/LFRS (semi- or fully automatic condensate drain, with pressure gauge)



## Function LFR/LFRS-...-DI-MAXI (semi- or fully automatic condensate drain, with pressure gauge)



## Datasheet

## Operating and environmental conditions

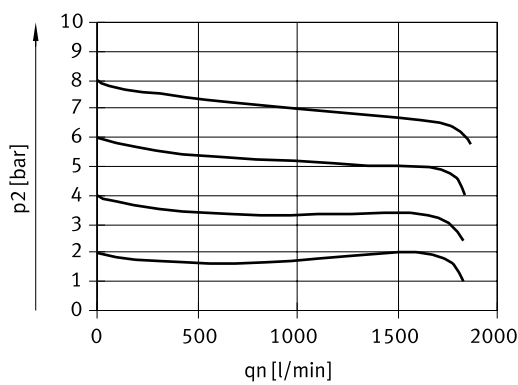
Grade of filtration	5		40	
Condensate drain	Fully automatic	Manually rotating	Fully automatic	Manually rotating
Air purity class at output	Compressed air to ISO 8573-1:2010 [6:8:4], Inert gases		Compressed air to ISO 8573-1:2010 [7:8:4], Inert gases	
Operating pressure	2 ... 12 bar	1 ... 16 bar	2 ... 12 bar	1 ... 16 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:9:-] Inert gases	Compressed air to ISO 8573-1:2010 [-:9:-] Inert gases	Compressed air to ISO 8573-1:2010 [7:9:-] Inert gases	Compressed air to ISO 8573-1:2010 [-:9:-] Inert gases
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)			
Ambient temperature	5 ... 60°C	-10 ... 60°C	5 ... 60°C	-10 ... 60°C
Media temperature	5 ... 60°C	-10 ... 60°C	5 ... 60°C	-10 ... 60°C
Storage temperature	-10 ... 60°C			
Corrosion resistance class CRC <sup>1)</sup>	2 - Moderate corrosion stress			

1) Corrosion resistance class CRC 3 to Festo standard FN 940070

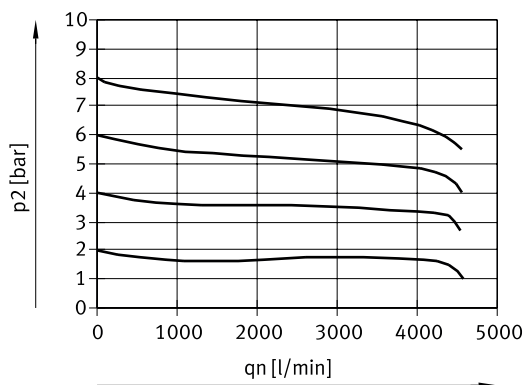
High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts in direct contact with a normal industrial environment, with primarily functional surface requirements.

## Materials

Material housing	Die-cast zinc
Material bowl	PC
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Standard flow rate  $q_n$  as a function of output pressure  $p_2$  (LFR/LFRS-1/4-D-MINI)

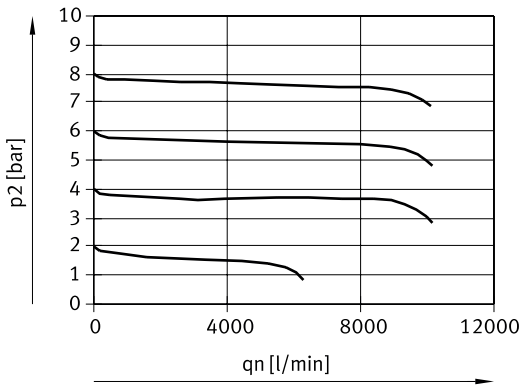
Input pressure  $p_1 = 10$  bar

Standard flow rate  $q_n$  as a function of output pressure  $p_2$  (LFR/LFRS-1/2-D-MIDI)

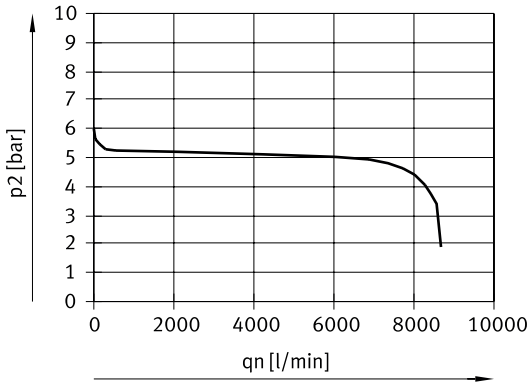
Input pressure  $p_1 = 10$  bar

Datasheet

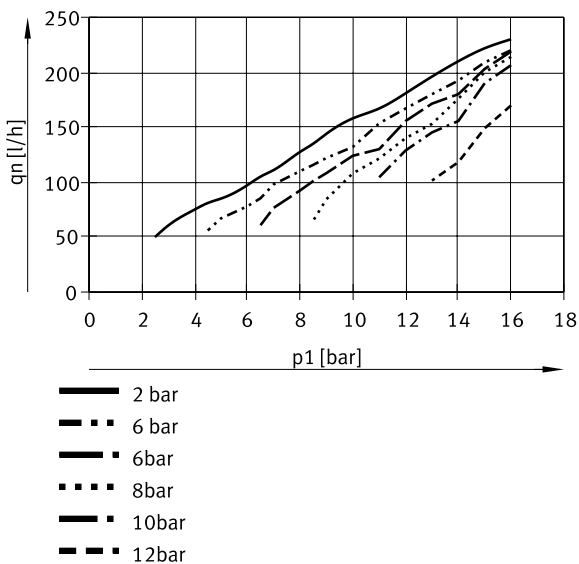
Standard flow rate  $q_n$  as a function of output pressure  $p_2$  (LFR/LFRS-1-D-MAXI)



Standard flow rate  $q_n$  as a function of output pressure  $p_2$  (LFR/LFRS-1-D-DI-MAXI)

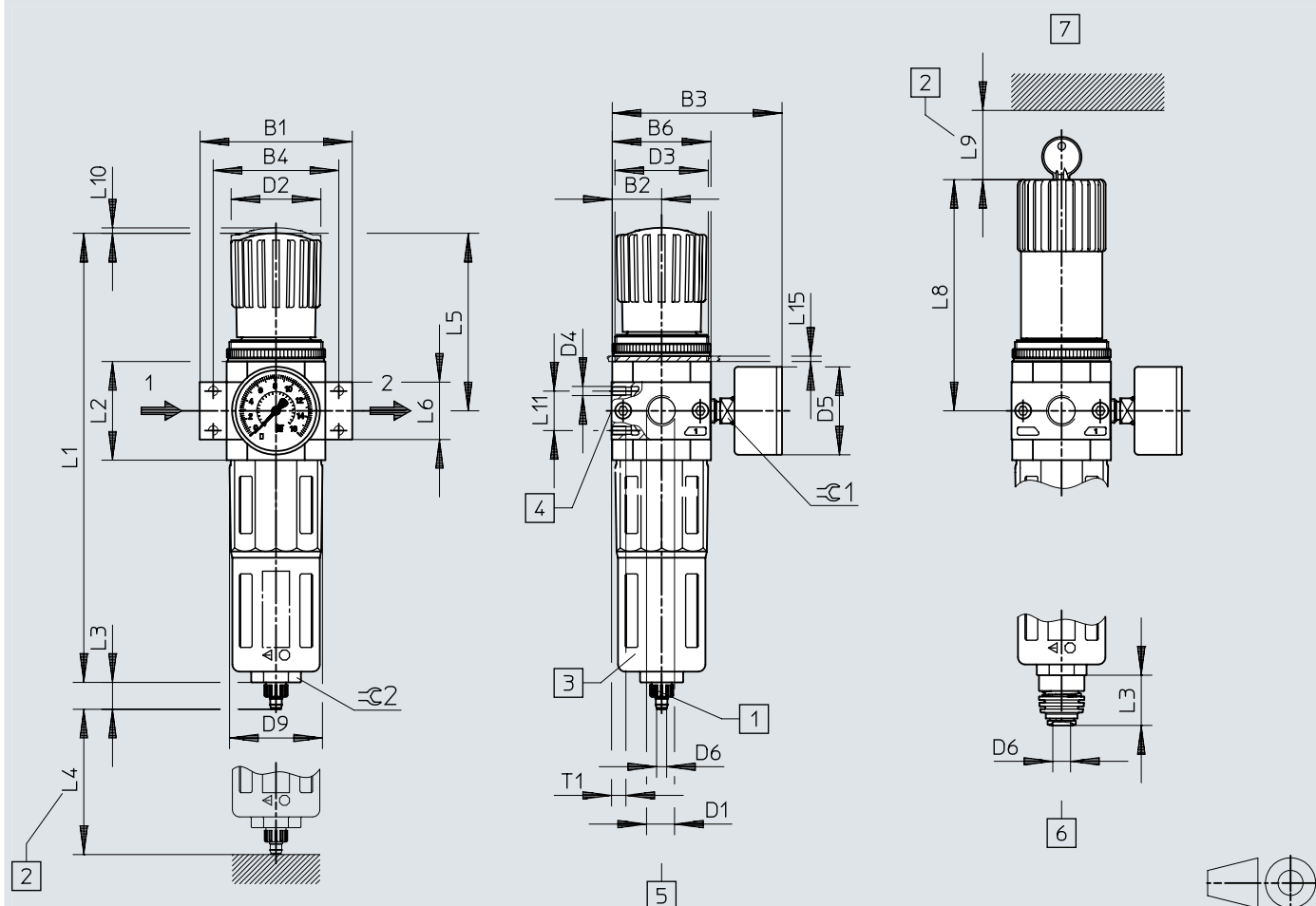


Internal air consumption  $q_n$  as a function of input pressure  $p_1$  (LFR/LFRS-...-MAXI)



## Dimensions

Dimensions – Filter regulators LFR/LFRS, Mini/Midi/Maxi

Download CAD data [www.festo.com](http://www.festo.com)

- [1] Barbed connector for plastic tubing PUN(-H)-8x1.25
- [2] Installation dimension
- [3] Metal bowl guard
- [4] Second pressure gauge connection
- [5] Manual condensate drain
- [6] Fully automatic condensate drain for plastic tubing PUN-6/PAN-6
- [7] Lockable

## Dimensions

	B1	B2	B3	B4	B6	D1	D2 ∅	D3	D4	D5 ∅	D6 ∅	D9 ∅
LFR/LFRS-1/8-D-MINI (A)	64	20	76	~52	40	G1/8	31	M36x1.5	M4	39	5,6	38
LFR/LFRS-1/4-D-MINI (A)						G1/4						
LFR/LFRS-3/8-D-MINI (A)	70					G3/8						
LFR/LFRS-1/4-D-MIDI (A)	~85	27,5	~94,5	~70	55	G1/4	50	M52x1.5	M5	39	5,6	52
LFR/LFRS-3/8-D-MIDI (A)						G3/8						
LFR/LFRS-1/2-D-MIDI (A)						G1/2						
LFR/LFRS-3/4-D-MIDI (A)						G3/4						
LFR/LFRS-1/2-D-MAXI (A)	96	33	106	80	66	G1/2	31	M36x1.5	M5	39	5,6	65
LFR/LFRS-1/2-D-DI-MAXI (A)			105			49	M52x1.5					
LFR/LFRS-3/4-D-MAXI (A)			106			31	M36x1.5					
LFR/LFRS-3/4-D-DI-MAXI (A)			105			49	M52x1.5					
LFR/LFRS-1-D-MAXI (A)			116			106	91	G1				
LFR/LFRS-1-D-DI-MAXI (A)		105			49	M52x1.5						

	L1	L2	L3	L4 min.	L5	L6	L8	L9	L10	L11 ±0,2	L15 max.	T1 min.	≈∅ 1	≈∅ 2
LFR/LFRS-1/8-D-MINI (A)	192,9	40	15 (19) <sup>1)</sup>	60	~69	20	98	60	3	11	3	7	14	22
LFR/LFRS-1/4-D-MINI (A)														
LFR/LFRS-3/8-D-MINI (A)														
LFR/LFRS-1/4-D-MIDI (A)	250	55 ±0,1	15 (19) <sup>1)</sup>	80	99	32 ±0,3	130	60	3	22	5	8	14	24
LFR/LFRS-3/8-D-MIDI (A)														
LFR/LFRS-1/2-D-MIDI (A)														
LFR/LFRS-3/4-D-MIDI (A)														
LFR/LFRS-1/2-D-MAXI (A)	252	66	15 (19) <sup>1)</sup>	90	82	32	111	60	3	22	4	8	14	24
LFR/LFRS-1/2-D-DI-MAXI (A)	275				~105	32	135		4					
LFR/LFRS-3/4-D-MAXI (A)	252				82	32	111		3					
LFR/LFRS-3/4-D-DI-MAXI (A)	275				~105	36	135		4					
LFR/LFRS-1-D-MAXI (A)	252				82	40	111		3					
LFR/LFRS-1-D-DI-MAXI (A)	275				~105	41	135		4					



## Ordering data

Pressure regulation range 0.5 ... 12 bar, rotary knob with latch, connecting plates with threaded connection, with pressure gauge, outer scale in bar, inner scale in psi									
Size	Condensate drain	Pneumatic connection, port 1	Grade of filtration	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type		
Maxi	Fully automatic	G1/2	5 µm	7,500 l/min	1,370 g	186494	LFR-1/2-D-5M-MAXI-A		
			40 µm	9,400 l/min		186492	LFR-1/2-D-MAXI-A		
		G3/4	5 µm	7,600 l/min	1,370 g	162732	LFR-3/4-D-5M-MAXI-A		
			40 µm	9,700 l/min		159636	LFR-3/4-D-MAXI-A		
		G1	5 µm	8,000 l/min	1,470 g	162733	LFR-1-D-5M-MAXI-A		
			40 µm	10,000 l/min		159637	LFR-1-D-MAXI-A		
		Manually rotating	G1/2	5 µm	7,500 l/min	1,370 g	186491	LFR-1/2-D-5M-MAXI	
				40 µm	9,400 l/min		186489	LFR-1/2-D-MAXI	
	G3/4		5 µm	7,600 l/min	1,370 g	162724	LFR-3/4-D-5M-MAXI		
			40 µm	9,700 l/min		159632	LFR-3/4-D-MAXI		
	G1		5 µm	8,000 l/min	1,470 g	162725	LFR-1-D-5M-MAXI		
			40 µm	10,000 l/min		159633	LFR-1-D-MAXI		
	Midi		Fully automatic	G1/4	5 µm	1,600 l/min	900 g	186486	LFR-1/4-D-5M-MIDI-A
					40 µm	2,000 l/min	920 g	186484	LFR-1/4-D-MIDI-A
		G3/8		5 µm	2,400 l/min	900 g	162729	LFR-3/8-D-5M-MIDI-A	
				40 µm	3,100 l/min	920 g	159583	LFR-3/8-D-MIDI-A	
G1/2		5 µm		2,600 l/min	900 g	162730	LFR-1/2-D-5M-MIDI-A		
		40 µm		3,400 l/min	920 g	159585	LFR-1/2-D-MIDI-A		
G3/4		5 µm		2,600 l/min	900 g	162731	LFR-3/4-D-5M-MIDI-A		
		40 µm		3,400 l/min	920 g	162685	LFR-3/4-D-MIDI-A		
Manually rotating		G1/4	5 µm	1,600 l/min	900 g	186483	LFR-1/4-D-5M-MIDI		
			40 µm	2,000 l/min	920 g	186481	LFR-1/4-D-MIDI		
		G3/8	5 µm	2,400 l/min	900 g	162721	LFR-3/8-D-5M-MIDI		
			40 µm	3,100 l/min	920 g	159582	LFR-3/8-D-MIDI		
		G1/2	5 µm	2,600 l/min	900 g	162722	LFR-1/2-D-5M-MIDI		
			40 µm	3,400 l/min	920 g	159584	LFR-1/2-D-MIDI		
		G3/4	5 µm	2,600 l/min	900 g	162723	LFR-3/4-D-5M-MIDI		
			40 µm	3,400 l/min	920 g	162683	LFR-3/4-D-MIDI		
Mini	Fully automatic	G1/8	5 µm	650 l/min	460 g	162726	LFR-1/8-D-5M-MINI-A		
			40 µm	750 l/min		159634	LFR-1/8-D-MINI-A		
		G1/4	5 µm	1,200 l/min	460 g	162727	LFR-1/4-D-5M-MINI-A		
			40 µm	1,400 l/min		159635	LFR-1/4-D-MINI-A		
		G3/8	5 µm	1,350 l/min	460 g	162728	LFR-3/8-D-5M-MINI-A		
			40 µm	1,600 l/min		162684	LFR-3/8-D-MINI-A		
		Manually rotating	G1/8	5 µm	650 l/min	460 g	162718	LFR-1/8-D-5M-MINI	
				40 µm	750 l/min		159630	LFR-1/8-D-MINI	
	G1/4		5 µm	1,200 l/min	460 g	162719	LFR-1/4-D-5M-MINI		
			40 µm	1,400 l/min		159631	LFR-1/4-D-MINI		
	G3/8		5 µm	1,350 l/min	460 g	162720	LFR-3/8-D-5M-MINI		
			40 µm	1,600 l/min		162682	LFR-3/8-D-MINI		

Pressure regulation range 0.5 ... 12 bar, rotary knob with latch, connecting plates with threaded connection, without pressure gauge								
Size	Condensate drain	Pneumatic connection, port 1	Grade of filtration	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type	
Maxi	Fully automatic	G1/2	5 µm	7,500 l/min	1,370 g	192627	LFR-1/2-D-5M-O-MAXI-A	
			40 µm	9,400 l/min	1,300 g	186493	LFR-1/2-D-O-MAXI-A	
		G3/4	5 µm	7,600 l/min	1,370 g	192628	LFR-3/4-D-5M-O-MAXI-A	
			40 µm	9,700 l/min	1,300 g	162700	LFR-3/4-D-O-MAXI-A	
		G1	5 µm	6,000 l/min	1,600 g	192401	LFR-1-D-5M-O-DI-MAXI-A	
			40 µm	10,000 l/min	1,470 g	192629	LFR-1-D-5M-O-MAXI-A	
		Manually rotating	G1/2	5 µm	7,500 l/min	1,370 g	192617	LFR-1/2-D-5M-O-MAXI
				40 µm	9,400 l/min	1,300 g	186490	LFR-1/2-D-O-MAXI
	G3/4		5 µm	7,600 l/min	1,370 g	192618	LFR-3/4-D-5M-O-MAXI	
			40 µm	9,700 l/min	1,300 g	162692	LFR-3/4-D-O-MAXI	
	G1	5 µm	6,000 l/min	1,600 g	192383	LFR-1-D-5M-O-DI-MAXI		

## Ordering data

Pressure regulation range 0.5 ... 12 bar, rotary knob with latch, connecting plates with threaded connection, without pressure gauge							
Size	Condensate drain	Pneumatic connection, port 1	Grade of filtration	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
Maxi	Manually rotating	G1	5 µm	8,000 l/min	1,470 g	192619	LFR-1-D-5M-O-MAXI
			40 µm	10,000 l/min	1,400 g	162693	LFR-1-D-O-MAXI
Midi	Fully automatic	G1/4	5 µm	1,600 l/min	900 g	192623	LFR-1/4-D-5M-O-MIDI-A
			40 µm	2,000 l/min	830 g	186485	LFR-1/4-D-O-MIDI-A
		G3/8	5 µm	2,400 l/min	900 g	192624	LFR-3/8-D-5M-O-MIDI-A
			40 µm	3,100 l/min	830 g	162697	LFR-3/8-D-O-MIDI-A
		G1/2	5 µm	2,600 l/min	900 g	192625	LFR-1/2-D-5M-O-MIDI-A
			40 µm	3,400 l/min	830 g	162698	LFR-1/2-D-O-MIDI-A
		G3/4	5 µm	2,600 l/min	900 g	192626	LFR-3/4-D-5M-O-MIDI-A
			40 µm	3,400 l/min	830 g	162699	LFR-3/4-D-O-MIDI-A
	Manually rotating	G1/4	5 µm	1,600 l/min	900 g	192613	LFR-1/4-D-5M-O-MIDI
			40 µm	2,000 l/min	830 g	186482	LFR-1/4-D-O-MIDI
		G3/8	5 µm	2,400 l/min	900 g	192614	LFR-3/8-D-5M-O-MIDI
			40 µm	3,100 l/min	830 g	162689	LFR-3/8-D-O-MIDI
		G1/2	5 µm	2,600 l/min	900 g	192615	LFR-1/2-D-5M-O-MIDI
			40 µm	3,400 l/min	830 g	162690	LFR-1/2-D-O-MIDI
		G3/4	5 µm	2,600 l/min	900 g	192616	LFR-3/4-D-5M-O-MIDI
			40 µm	3,400 l/min	830 g	162691	LFR-3/4-D-O-MIDI
Mini	Fully automatic	G1/8	5 µm	650 l/min	460 g	192620	LFR-1/8-D-5M-O-MINI-A
			40 µm	750 l/min	410 g	162694	LFR-1/8-D-O-MINI-A
		G1/4	5 µm	1,200 l/min	460 g	192621	LFR-1/4-D-5M-O-MINI-A
			40 µm	1,400 l/min	410 g	162695	LFR-1/4-D-O-MINI-A
		G3/8	5 µm	1,350 l/min	460 g	192622	LFR-3/8-D-5M-O-MINI-A
			40 µm	1,600 l/min	410 g	162696	LFR-3/8-D-O-MINI-A
	Manually rotating	G1/8	5 µm	650 l/min	460 g	192610	LFR-1/8-D-5M-O-MINI
			40 µm	750 l/min	410 g	162686	LFR-1/8-D-O-MINI
		G1/4	5 µm	1,200 l/min	460 g	192611	LFR-1/4-D-5M-O-MINI
			40 µm	1,400 l/min	410 g	162687	LFR-1/4-D-O-MINI
		G3/8	5 µm	1,350 l/min	460 g	192612	LFR-3/8-D-5M-O-MINI
			40 µm	1,600 l/min	410 g	162688	LFR-3/8-D-O-MINI

Pressure regulation range 0.5 ... 7 bar, rotary knob with latch, connecting plates with threaded connection, with pressure gauge, outer scale in bar, inner scale in psi								
Size	Condensate drain	Pneumatic connection, port 1	Grade of filtration	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type	
Maxi	Fully automatic	G1/2	40 µm	9,500 l/min	1,370 g	186496	LFR-1/2-D-7-MAXI-A	
				10,000 l/min		162716	LFR-3/4-D-7-MAXI-A	
		G1		11,000 l/min	1,470 g	162717	LFR-1-D-7-MAXI-A	
	Manually rotating	G1/2		9,500 l/min	1,370 g	186495	LFR-1/2-D-7-MAXI	
				10,000 l/min		162708	LFR-3/4-D-7-MAXI	
		G1		11,000 l/min	1,470 g	162709	LFR-1-D-7-MAXI	
Midi	Fully automatic	G1/4	40 µm	2,100 l/min	900 g	186488	LFR-1/4-D-7-MIDI-A	
				3,200 l/min		162713	LFR-3/8-D-7-MIDI-A	
		3,900 l/min		162714		LFR-1/2-D-7-MIDI-A		
		4,000 l/min		162715		LFR-3/4-D-7-MIDI-A		
	Manually rotating	G1/4		2,100 l/min	900 g	186487	LFR-1/4-D-7-MIDI	
				3,200 l/min		162705	LFR-3/8-D-7-MIDI	
		3,900 l/min		162706		LFR-1/2-D-7-MIDI		
		4,000 l/min		162707		LFR-3/4-D-7-MIDI		
		G1/2		3,900 l/min		900 g	162706	LFR-1/2-D-7-MIDI
				4,000 l/min			162707	LFR-3/4-D-7-MIDI
Mini	Fully automatic	G1/8	40 µm	900 l/min	460 g	162710	LFR-1/8-D-7-MINI-A	
				1,500 l/min		162711	LFR-1/4-D-7-MINI-A	
		1,700 l/min		162712		LFR-3/8-D-7-MINI-A		
	Manually rotating	G1/8		900 l/min	460 g	162702	LFR-1/8-D-7-MINI	
				1,500 l/min		162703	LFR-1/4-D-7-MINI	
		G3/8		1,700 l/min		162704	LFR-3/8-D-7-MINI	

## Ordering data

Pressure regulation range 0.5 ... 7 bar, rotary knob with latch, connecting plates with threaded connection, without pressure gauge							
Size	Condensate drain	Pneumatic connection, port 1	Grade of filtration	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
Maxi	Fully automatic	G1/2	40 µm	9,500 l/min	1,370 g	192607	LFR-1/2-D-7-O-MAXI-A
		G3/4		10,000 l/min		192608	LFR-3/4-D-7-O-MAXI-A
		G1		11,000 l/min	1,470 g	192609	LFR-1-D-7-O-MAXI-A
	Manually rotating	G1/2		9,500 l/min	1,370 g	192597	LFR-1/2-D-7-O-MAXI
		G3/4		10,000 l/min		192598	LFR-3/4-D-7-O-MAXI
		G1		11,000 l/min	1,470 g	192599	LFR-1-D-7-O-MAXI
Midi	Fully automatic	G1/4	2,100 l/min	900 g		192603	LFR-1/4-D-7-O-MIDI-A
		G3/8	3,200 l/min			192604	LFR-3/8-D-7-O-MIDI-A
		G1/2	3,900 l/min			192605	LFR-1/2-D-7-O-MIDI-A
		G3/4	4,000 l/min			192606	LFR-3/4-D-7-O-MIDI-A
		G1	4,000 l/min			192607	LFR-1-D-7-O-MIDI-A
	Manually rotating	G1/4	2,100 l/min	900 g		192593	LFR-1/4-D-7-O-MIDI
		G3/8	3,200 l/min			192594	LFR-3/8-D-7-O-MIDI
		G1/2	3,900 l/min			192595	LFR-1/2-D-7-O-MIDI
		G3/4	4,000 l/min			192596	LFR-3/4-D-7-O-MIDI
		G1	4,000 l/min			192597	LFR-1-D-7-O-MIDI
Mini	Fully automatic	G1/8	900 l/min	460 g		192600	LFR-1/8-D-7-O-MINI-A
		G1/4	1,500 l/min			192601	LFR-1/4-D-7-O-MINI-A
		G3/8	1,700 l/min			192602	LFR-3/8-D-7-O-MINI-A
		G1	1,700 l/min			192603	LFR-1-D-7-O-MINI-A
	Manually rotating	G1/8	900 l/min	460 g		192590	LFR-1/8-D-7-O-MINI
		G1/4	1,500 l/min			192591	LFR-1/4-D-7-O-MINI
		G3/8	1,700 l/min			192592	LFR-3/8-D-7-O-MINI
		G1	1,700 l/min			192593	LFR-1-D-7-O-MINI

Pressure regulation range 0.5 ... 12 bar, directly actuated diaphragm regulator with integrated reverse flow function, rotary knob with latch, connecting plates with threaded connection, with pressure gauge, outer scale in bar, inner scale in psi

Size	Condensate drain	Pneumatic connection, port 1	Grade of filtration	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type	
Maxi	Fully automatic	G1/2	5 µm	4,000 l/min	1,670 g	192388	LFR-1/2-D-5M-DI-MAXI-A	
			40 µm	4,500 l/min		192386	LFR-1/2-D-DI-MAXI-A	
		G3/4	5 µm	5,800 l/min		192394	LFR-3/4-D-5M-DI-MAXI-A	
			40 µm	6,800 l/min		192392	LFR-3/4-D-DI-MAXI-A	
		G1	5 µm	6,000 l/min		192400	LFR-1-D-5M-DI-MAXI-A	
			40 µm	7,000 l/min		192398	LFR-1-D-DI-MAXI-A	
		Manually rotating	G1/2	5 µm		4,000 l/min	192370	LFR-1/2-D-5M-DI-MAXI
				40 µm		4,500 l/min	192368	LFR-1/2-D-DI-MAXI
	G3/4		5 µm	5,800 l/min	192376	LFR-3/4-D-5M-DI-MAXI		
			40 µm	6,800 l/min	192374	LFR-3/4-D-DI-MAXI		
	G1		5 µm	6,000 l/min	192382	LFR-1-D-5M-DI-MAXI		
			40 µm	7,000 l/min	192380	LFR-1-D-DI-MAXI		

Pressure regulation range 0.5 ... 12 bar, directly actuated diaphragm regulator with integrated return flow function, rotary knob with latch, connecting plates with threaded connection, without pressure gauge

Size	Condensate drain	Pneumatic connection, port 1	Grade of filtration	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
Maxi	Fully automatic	G1/2	5 µm	4,000 l/min	1,600 g	192389	LFR-1/2-D-5M-O-DI-MAXI-A
			40 µm	4,500 l/min		192387	LFR-1/2-D-O-DI-MAXI-A
		G3/4	5 µm	5,800 l/min		192395	LFR-3/4-D-5M-O-DI-MAXI-A
			40 µm	6,800 l/min		192393	LFR-3/4-D-O-DI-MAXI-A
		G1	5 µm	6,000 l/min		192401	LFR-1-D-5M-O-DI-MAXI-A
			40 µm	7,000 l/min		192399	LFR-1-D-O-DI-MAXI-A
		Manually rotating	G1/2	5 µm		4,000 l/min	192371
	40 µm			4,500 l/min	192369	LFR-1/2-D-O-DI-MAXI	
	G3/4		5 µm	5,800 l/min	192377	LFR-3/4-D-5M-O-DI-MAXI	
			40 µm	6,800 l/min	192375	LFR-3/4-D-O-DI-MAXI	
	G1		5 µm	6,000 l/min	192383	LFR-1-D-5M-O-DI-MAXI	
			40 µm	7,000 l/min	192381	LFR-1-D-O-DI-MAXI	

## Ordering data

**Pressure regulation range 0.5 ... 12 bar, directly actuated diaphragm regulator with integrated return flow function, rotary knob with latch, connecting plates with threaded connection, without pressure gauge**

Size	Condensate drain	Pneumatic connection, port 1	Grade of filtration	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
Maxi	Manually rotating	G1	40 µm	7,000 l/min	1,600 g	192381	LFR-1-D-O-DI-MAXI

**Pressure regulation range 0.5 ... 7 bar, directly actuated diaphragm regulator with integrated reverse flow function, rotary knob with latch, connecting plates with threaded connection, with pressure gauge, outer scale in bar, inner scale in psi**

Size	Condensate drain	Pneumatic connection, port 1	Grade of filtration	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
Maxi	Fully automatic	G1/2	40 µm	7,600 l/min	1,670 g	192390	LFR-1/2-D-7-DI-MAXI-A
		G3/4		7,700 l/min		192396	LFR-3/4-D-7-DI-MAXI-A
		G1		7,800 l/min		192402	LFR-1-D-7-DI-MAXI-A
	Manually rotating	G1/2		7,600 l/min		192372	LFR-1/2-D-7-DI-MAXI
		G3/4		7,700 l/min		192378	LFR-3/4-D-7-DI-MAXI
		G1		7,800 l/min		192384	LFR-1-D-7-DI-MAXI

**Pressure regulation range 0.5 ... 7 bar, directly actuated diaphragm regulator with integrated return flow function, rotary knob with latch, connecting plates with threaded connection, without pressure gauge**

Size	Condensate drain	Pneumatic connection, port 1	Grade of filtration	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
Maxi	Fully automatic	G1/2	40 µm	7,600 l/min	1,600 g	192391	LFR-1/2-D-7-O-DI-MAXI-A
		G3/4		7,700 l/min		192397	LFR-3/4-D-7-O-DI-MAXI-A
		G1		7,800 l/min		192385	LFR-1-D-7-O-DI-MAXI
	Manually rotating	G1/2		7,600 l/min		192373	LFR-1/2-D-7-O-DI-MAXI
		G3/4		7,700 l/min		192379	LFR-3/4-D-7-O-DI-MAXI
		G1		7,800 l/min		192385	LFR-1-D-7-O-DI-MAXI

**Pressure regulation range 0.5 ... 12 bar, rotary knob with integrated lock, connecting plates with threaded connection, with pressure gauge, outer scale in bar, inner scale in psi**

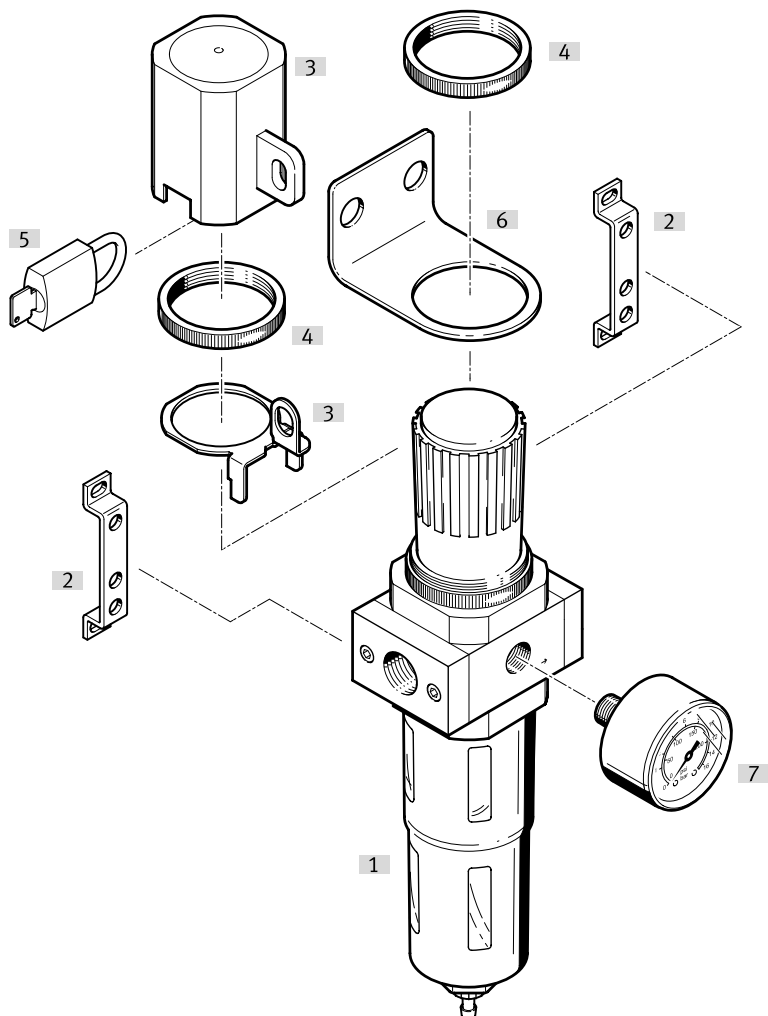
Size	Condensate drain	Pneumatic connection, port 1	Grade of filtration	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
Midi	Fully automatic	G1/2	5 µm	2,600 l/min	1,140 g	194766	LFRS-1/2-D-5M-MIDI-A
			40 µm	3,400 l/min	1,160 g	194757	LFRS-1/2-D-MIDI-A
	Manually rotating		5 µm	2,600 l/min	1,140 g	194764	LFRS-1/2-D-5M-MIDI
			40 µm	3,400 l/min	1,160 g	194756	LFRS-1/2-D-MIDI
Mini	Fully automatic	G1/4	5 µm	1,200 l/min	560 g	194718	LFRS-1/4-D-5M-MINI-A
			40 µm	1,400 l/min		194709	LFRS-1/4-D-MINI-A
	Manually rotating		5 µm	1,200 l/min		194716	LFRS-1/4-D-5M-MINI
			40 µm	1,400 l/min		194708	LFRS-1/4-D-MINI

**Pressure regulation range 0.5 ... 7 bar, rotary knob with integrated lock, connecting plates with threaded connection, with pressure gauge, outer scale in bar, inner scale in psi**

Size	Condensate drain	Pneumatic connection, port 1	Grade of filtration	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
Midi	Fully automatic	G1/2	40 µm	3,900 l/min	1,140 g	194762	LFRS-1/2-D-7-MIDI-A
	Manually rotating					194760	LFRS-1/2-D-7-MIDI
Mini	Fully automatic	G1/4		1,500 l/min	560 g	194714	LFRS-1/4-D-7-MINI-A
	Manually rotating					194712	LFRS-1/4-D-7-MINI

## Peripherals

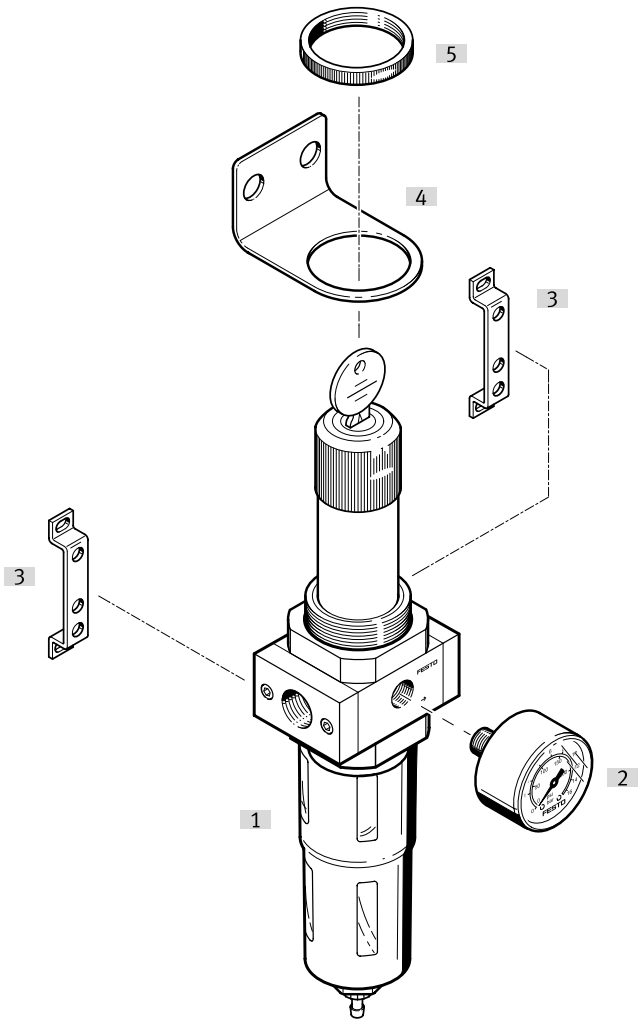
## Filter regulator LFR



Accessories		→ Link
Type/order code	Description	
[1] Filter regulator LFR		<a href="#">lfr-d</a>
[2] Mounting bracket HFOE		<a href="#">15</a>
[3] Regulator lock LRVS		<a href="#">16</a>
[4] Knurled nut HMR	Included in the scope of delivery	<a href="#">lfr-d</a>
[5] Padlock LRVS-D		<a href="#">16</a>
[6] Mounting bracket HR-D		<a href="#">15</a>
[7] Pressure gauge MA		<a href="#">15</a>

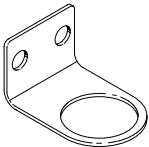
## Peripherals

### Filter regulator LFRS (lockable)

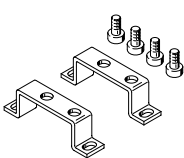


Accessories		→ Link
Type/order code	Description	
[1] Filter regulator LFRS		<a href="#">lfrs-d</a>
[2] Pressure gauge MA		<a href="#">15</a>
[3] Mounting bracket HFOE		<a href="#">15</a>
[4] Mounting bracket HR-D		<a href="#">15</a>
[5] Knurled nut HMR	Included in the scope of delivery	<a href="#">lfrs-d</a>

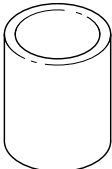
## Accessories

Mounting bracket HR-D						
	Material bracket	Corrosion resistance class CRC <sup>1)</sup>	Product weight	Part no.	Type	
		1 - Low corrosion stress		164936	HR-D-MINI	
		2 - Moderate corrosion stress		162804	HR-D-MIDI	
				162805	HR-D-MAXI	
				193802	HR-D-DI-MAXI	
	Steel	3 - high corrosion stress	73 g	4650310	HR-D-R3	

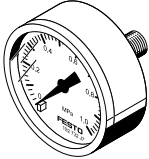
1) More information: [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

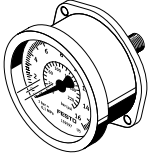
Mounting bracket HFOE-D-MIDI/MAXI					
	Short type code	Corrosion resistance class CRC <sup>1)</sup>	Part no.	Type	
	HFOE	2 - Moderate corrosion stress	159593	HFOE-D-MIDI/MAXI	

1) More information: [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

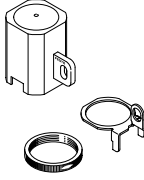
Filter cartridges, D series, metal					
	Size	Grade of filtration <sup>1)</sup>	Part no.	Type	
	Maxi	5 µm	159641	LFP-D-MAXI-5M	
	Midi		159594	LFP-D-MIDI-5M	
	Mini		159640	LFP-D-MINI-5M	

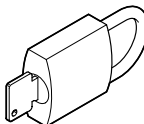
1) Grade of filtration 5 µm: colour blue  
Grade of filtration 40 µm: colour white

Pressure gauge MA						
	Size	Pneumatic connection	Indicating range	Product weight	Part no.	Type
	Diameter 40 mm	G1/8	0 ... 10 bar	60 g	359874	MA-40-10-1/8
			0 ... 16 bar		345395	MA-40-16-1/8
		Diameter 50 mm	G1/4	0 ... 10 bar	70 g	183900
	R1/8			60 g	162835	MA-40-10-1/8-EN
	G1/4		0 ... 16 bar	70 g	359873	MA-50-10-1/4
					356759	MA-50-16-1/4

Flanged pressure gauge FMA						
	Size	Pneumatic connection	Indicating range	Product weight	Part no.	Type
	Diameter 40 mm	G1/4	0 ... 10 bar	80 g	159596	FMA-40-10-1/4-EN
			0 ... 16 bar		159597	FMA-40-16-1/4-EN
	Diameter 50 mm		0 ... 10 bar	100 g	159599	FMA-50-10-1/4-EN
			0 ... 16 bar		159600	FMA-50-16-1/4-EN

## Accessories

Regulator lock LRVS					
	Size	LABS (PWIS) conformity	Product weight	Part no.	Type
	Grid dimension 40 mm (without sub-bases)	VDMA24364-B1/B2-L	40 g	<b>193781</b>	<b>LRVS-D-MINI</b>
	Grid dimension 55 mm (without sub-bases)		60 g	<b>193782</b>	<b>LRVS-D-MIDI</b>
	Grid dimension 66 mm (without sub-bases)		36 g	<b>193784</b>	<b>LRVS-D-DI-MAXI</b>
			56 g	<b>193783</b>	<b>LRVS-D-MAXI</b>

Padlock LRVS-D					
	Corrosion resistance class CRC <sup>1)</sup>	LABS (PWIS) conformity	Product weight	Part no.	Type
	2 - Moderate corrosion stress	VDMA24364-B1/B2-L	120 g	<b>193786</b>	<b>LRVS-D</b>

1) More information: [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)